Q. Re: 20% reduction in the number of outages attributable to equipment failures and also to scheduled maintenance, page 1-3, lines 19-23

Please provide details of the staff reductions and/or redeployments that have been implemented as a result of the reduced labour requirement, including detail of the job categories that have experienced reductions in the employee count.

The Company Evidence, Section 1: Introduction, page 1-3, lines 19-23 deals with the

 A. The *Company Evidence, Section 1: Introduction*, page 1-3, lines 19-23 deals with the reduction in customer outages attributable to equipment failures and scheduled maintenance.

The reduction in customer outages associated with equipment failures is the result of continuing rigorous maintenance by Newfoundland Power. This maintenance has reduced customer outages but has not resulted in staff reductions or redeployments because it has not resulted in reduced labour requirements. By their nature, rigorous maintenance programs for electrical systems require continuing cycles of inspection and repair of equipment, much of which is aged. Repair requirements change over time. ¹

Details concerning Newfoundland Power's reliability and asset management practices, including the skilled workers by occupation for the 5 year period 2009 through 2013, can be found in *The Liberty Consulting Group's Report on Island Interconnected System to Interconnection with Muskrat Falls addressing Newfoundland Power, December 17, 2014* (the "Liberty Consulting Report"). Amongst the conclusions in the Liberty Consulting Report, were the following:

"Newfoundland Power's reliability has improved significantly since 1999 and has recently remained stable overall. Its transmission and distribution systems operate effectively in ensuring adequate service reliability. Effective maintenance and capital programs, that appropriately recognize the age of its assets, have contributed materially to improved reliability...

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The reduction in outages due to equipment failure is principally a result of Newfoundland Power's inspection and maintenance program. This program is not static and evolves to meet the requirements of the Company's electrical system. For example, one aspect of the program is designed to proactively replace electrical equipment which has been identified as being prone to failure. Historically, the largest contributor to equipment failure was insulators. The maintenance program has addressed this issue since 1998. In recent years conductor failure has become the biggest contributor. Conductor repairs tend to be more time consuming and costly than insulator replacements.

The Liberty Consulting Group's Report on Island Interconnected System to Interconnection with Muskrat Falls addressing Newfoundland Power, December 17, 2014 was commissioned by the Board in its Investigation and Hearing into the Supply Issues and Power Outages on the Island Interconnected System. See, in particular, page 30, et. seq., Skilled Worker Staffing.

1 The program, organization, and staffing of Newfoundland Power's asset 2 management functions are sound. The Company uses an effective 3 combination of periodic inspection and maintenance programs and capital rebuild and modernization projects. Vegetation management practices also 4 5 conform to good utility practices."³ 6 7 The reduction in customer outages attributable to scheduled maintenance is the result of better planning and co-ordination⁴ and an increase in the amount of maintenance done 8 9 using live line techniques.⁵ 10 While increased work performed in energized conditions has reduced customer outages, it 11 12 has not resulted in staff reductions or redeployments because it has not resulted in 13 reduced labour requirements. The overall labour effort and cost associated with planned 14 maintenance has been stable while customer outages have been reduced. 15 16 The focus of Newfoundland Power's reliability management is the reliability of service to its customers. Reliability improvements have primarily been achieved by more efficient 17 deployment of the physical and human resources devoted to the reliability and asset 18 19 management of the Company's electrical system. They have not been achieved by 20 reducing the resources devoted to the reliability and asset management of the Company's electrical system. 21 22 23

Please refer to the response to Request for Information PUB-NP-009 for more information concerning the managerial control Newfoundland Power exercises over its overall labour costs.

See The Liberty Com-

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See The Liberty Consulting Group's Report on Island Interconnected System to Interconnection with Muskrat Falls addressing Newfoundland Power, December 17, 2014, page ES-2.

One example of the planning and co-ordination efforts is related to the Substation PCB Phase out program. Scheduled maintenance required on distribution lines out of substations upon which work is planned under the PCB Phase out program is typically now completed during the outage required to perform work under the PCB Phase out program. Overall the labour effort is the same but all work gets done under one outage.

Live line work is more labour intensive than de-energized work due primarily to more rigorous safe work practices.